

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/040770 A1

(51) International Patent Classification⁷: **G01N 21/00**,
21/64, C12M 1/34

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(21) International Application Number:
PCT/US2004/035297

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(22) International Filing Date: 22 October 2004 (22.10.2004)

(25) Filing Language: English

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(26) Publication Language: English

(30) Priority Data:
60/513,301 22 October 2003 (22.10.2003) US

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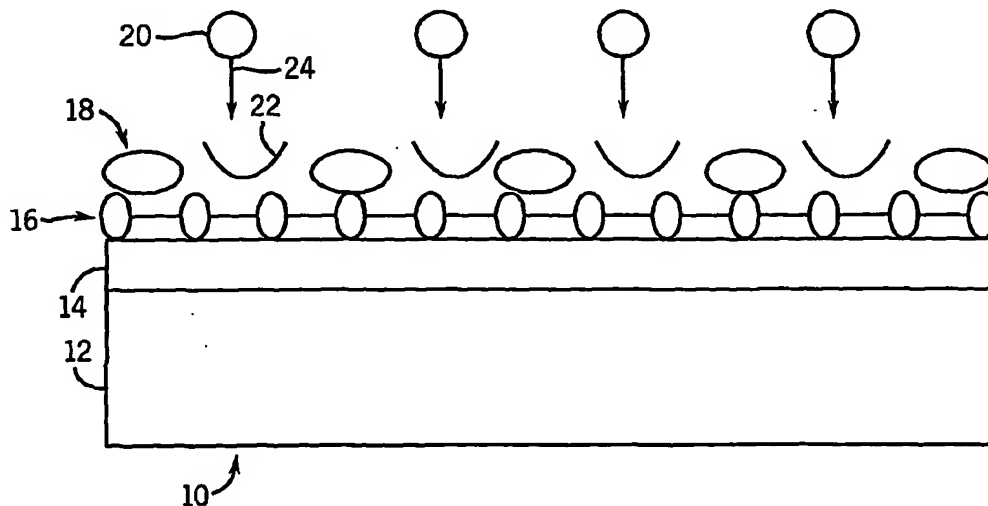
(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

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[Continued on next page]

(54) Title: CHEMICAL SENSORS FEATURING DUAL-SENSING MOTIFS



(57) Abstract: Apparatus and methods featuring a sensor (10) having dual-sensing motifs. The sensor (10) includes an entrant medium (12), a thin metal film layer (14), sensing elements (16), and a fluorescent molecule (18) associated with the sensing elements (16). A target molecule (20) is captured by the sensing elements (16), and Surface Plasmon Resonance (SRP) and fluorescent detection are employed. The apparatus and methods were tested for the detection of Pinacolyl methylphosphanate (PMP), a simulant for nerve agent Soman.

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FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*